

REMARKS

The Final Office Action mailed December 15, 2005 has been carefully considered. Reconsideration in view of the following remarks is respectfully requested.

Canceled Claims

Claims 2 and 14 have been canceled without prejudice or disclaimer of the subject matter contained therein.

Rejection(s) Under 35 U.S.C. §§ 102 and 103

Claims 1-3, 5, 7-8, 10 and 12 were rejected under 35 U.S.C. § 102(b) as anticipated by Hanawa et al. (U.S. pat. no. 5,890,077, hereinafter, "Hanawa") in view of Pehrsson et al. (U.S. pat. no. 6,615,059). **Presumably the intent of the Office Action is a 35 U.S.C. § 103(a) obviousness rejection, since two references cannot be combined to provide a basis for a 35 U.S.C. § 102(b) anticipation rejection.**

According to the Manual of Patent Examining Procedure (M.P.E.P.),

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.¹

Claim 1 as amended reads as follows:

1. A system comprising:
a radio modem unit;
an RF signal booster unit connectable to the radio modem unit through a single connection line by way of which radio

¹ M.P.E.P § 2143.

communication between the radio modem unit and RF signal booster occurs; and

auto-detect logic configured to detect a DC offset on said single connection line, said DC offset being indicative of a connection of the radio modem unit to the RF signal booster unit.

Claim 1 thus recites *a single connection line* between the radio modem and the booster. The single connection line serves two purposes: 1) It carries radio communication between the radio modem and the booster, and 2) it carries a detectable DC offset that indicates that the booster is connected to the radio modem. Such a single connection line is not disclosed in Hanawa. Hanawa discloses a connector (27, 57, 97) and explains that communication between the telephone and booster is by way of the connector. Hanawa also explains that this communication occurs when a connection between the telephone and booster exists, and, in FIG. 7, shows an example of a connection detection circuit 96. However, none of these features read on claim 1, which, as stated above, recites a single connection line that serves the dual purposes of 1) carrying radio communication between a radio modem and a booster, and 2) carrying a detectable DC offset that indicates that the booster is connected to the radio modem. This is true even if, arguendo, the contention in the Office Action that the dedicated voltage shorting mechanism of detection circuit 96 of Hanawa is equivalent to the claimed DC offset is accepted. In Hanawa, the detection circuit 96, along with any discussion of detecting a connection of the booster to the telephone, are separate and distinct from the communication between the telephone and booster, *and there is never any teaching or suggestion of combining them over a single connection line in the manner of the present invention*. Applicants respectfully request that the Office point to a particular passage or description in Hanawa that shows a single connection line that serves the dual purposes of 1) carrying radio communication between a radio modem and a booster, and 2) carrying a detectable DC offset that indicates that the booster is connected to the radio modem. Such a teaching or suggestion simply does not exist, and even in the case where a single *connector* (to be distinguished from a single *connection line*) is shown, as in the connectors 27 and 57, multiple connection lines are shown and these are for communication purposes, not for the purpose of carrying a DC offset in the manner claimed. In the case of

connector 97, again multiple lines are shown, and these are both exclusively for grounding the transistor Q using shorting circuit 98 in connection detector 96.

With respect to the contention in the Office Action that the dedicated voltage shorting mechanism of detection circuit 96 of Hanawa is equivalent to the claimed DC offset, Applicants respectfully disagree. A DC offset in its ordinary and accustomed meaning is a deviation from some expected voltage value, and is not customarily used to characterized a short/open circuit. According to the Oxford English Dictionary, an offset in general is “A small fixed alteration or adjustment of some aspect of a system; *spec.* a small bias introduced to ensure correct operation of an electrical circuit. Also: a sustained deviation or discrepancy between the actual and predicted value of a variable; *spec.* a small deviation from a correct or normal voltage, current, etc.” These definitions are inconsistent with the shorting mechanism provided in the detection circuit 96 of Hanawa. Therefore not only does Hanawa fail to teach or suggest a single connection line that serves the dual purposes of 1) carrying radio communication between a radio modem and a booster, and 2) carrying a detectable DC offset that indicates that the booster is connected to the radio modem, but Hanawa also fails to teach or suggest the use of a DC offset on a connection line altogether. These shortcomings of Hanawa are not remedied by Pehrsson, and the combination of these two references, even if proper, would not result in or render obvious all the claimed features of claim 1. For these reasons at least, Applicants respectfully request that the 35 U.S.C. § 103(a) rejection based on this combination be withdrawn.

Claims 3-7 depend from claim 1 and the withdrawal of the rejection thereof is respectfully requested for at least the same reasons.

Claim 8 recites similar features as claim 1. Specifically, claim 8 recites “a single connection line adapted to carry an RF signal and a DC offset.” This feature is also absent from Hanawa and Pehrsson, as an extrapolation of the above discussion would clearly show, and the combination of Hanawa and Pehrsson, even if proper, would not result in or render obvious all the claimed features of claim 8. Claim 8, along with claims 10-12 dependent thereon, is therefore patentable over Hanawa and Pehrsson.

Claims 13-17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hanawa in view of Pehrsson and in further view of Barber (U.S. pat. no. 6,230,031, hereinafter, “Barber”).

Claim 13, from which claims 15-17 depend (claim 14 has been canceled), recites “a single coaxial connection line adapted to transmit RF signals and a DC offset indicative of the presence of the booster unit.” As discussed above, this limitation, which also specifies that the connection line be coaxial, is neither taught nor suggested by the combination of Hanawa and Pehrsson. Barber, which for example in FIG. 4 shows a holder 32 having two lines, neither of which carries a DC offset, for “signaling connections and a coaxial cable for passing RF signals” (col. 4, ll. 5-6; note that neither of these carries a DC offset), adds little to overcome this shortcoming.

Claims 19 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Barber in view of Hanawa in view of Pehrsson and in further view of Lind (U.S. pat. no. 4,371,749, hereinafter, “Lind”). Claim 19 recites providing RF energy from a radio modem to a power amplifier in booster unit “by way of a single connection line adapted to further carry a DC offset indicative . . . of the presence of the booster unit.” As discussed above, Barber, Hanawa and Pehrsson fail to teach or suggest such a feature, and this failure is not remedied by Lind, which is directed to specific kind of circuit designed to limit amplitude excursions of an angle demodulated signal. Therefore, even if all four of these references were properly combinable, which Applicants do not concede, the invention of claim 19 (an claim 21 dependent therefrom) would not result.

Claims 22 and 24-25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hanawa in view of Barber. From the above, it will appreciated that the combination of Hanawa and Barber also fails to teach or suggest at least the following features of claim 22, from which claims 24-25 depend: “detecting a DC offset on the connection line to determine whether the booster unit is connected,” “transmitting baseband signals on the connection line from the

radio modem to the booster unit,” and “transmitting an RF signal on the connector line from the radio modem to the booster unit.” For this reason at least, Applicants respectfully request that the rejection of claims 22 and 24-25 based on the combination of Hanawa and Barber be withdrawn.

Conclusion


In view of the preceding discussion, Applicants respectfully urge that the claims of the present application define patentable subject matter and should be passed to allowance.

If the Examiner believes that a telephone call would help advance prosecution of the present invention, the Examiner is kindly invited to call the undersigned attorney at the number below.

Please charge any additional required fees, including those necessary to obtain extensions of time to render timely the filing of the instant Amendment and/or Reply to Office Action, or credit any overpayment not otherwise credited, to our deposit account no. 50-1698.

Respectfully submitted,
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